



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,078	03/23/2006	Simon D. Scott	36-1971	7004
23117	7590	12/23/2008	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			RUTLEDGE, AMELIA L	
ART UNIT	PAPER NUMBER			
	2176			
MAIL DATE	DELIVERY MODE			
12/23/2008	PAPER			

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,078	<b>Applicant(s)</b> SCOTT ET AL.
	<b>Examiner</b> AMELIA RUTLEDGE	<b>Art Unit</b> 2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 23 March 2006.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-27 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-27 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 23 March 2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-166/08)  
 Paper No(s)/Mail Date 08/10/2006

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

**DETAILED ACTION**

1. This action is responsive to the following communications: original application, filed 03/23/2006; Information Disclosure Statement, filed 08/10/2006.
2. Claims 1-27 are pending. Claims 1, 11, 21, and 23 are independent claims.

***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 1-10, 21, 22, and 25-27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

**Regarding independent claim 1,** claim 1 recites in part, *an apparatus for adapting web page content for display on an intended display device, comprising adaptation means for splitting the content into a plurality of smaller web pages for display on said device...* Claim 1 is a means plus function claim, which invokes the rebuttable presumption of 35 USC 112 6th paragraph, however, in this case the corresponding "adaptation means" for the claimed apparatus is not limited in the specification to a statutory category of invention, because it is possible for the disclosed meant to cover an embodiment of software alone.

While claim 1 recites an "intended display device" which is an element of computer hardware, the claim recites adapting web page content "for display" on the device, therefore the claim does not necessarily require the use of computer hardware, and therefore is directed to non-statutory subject matter, although an intended use with computer hardware is recited.

**Regarding dependent claims 2-10**, claims 2-10 are rejected because they add no limitations which would render the claimed subject matter statutory.

**Regarding independent claim 21**, claim 21 recites, in part; *an apparatus for adapting web page content for display on a device whose display is sufficiently smaller than the originally intended display size of the web page for the content of the web page to require splitting over a plurality of pages on the display of the device*,

*the apparatus comprising: means arranged to integrate the process of splitting the content with applying transformations....* Claim 21 is a means plus function claim, which invokes the rebuttable presumption of 35 USC 112 6th paragraph, however in this case the corresponding "means" for the claimed apparatus is not limited in the specification to a statutory category of invention, because it is possible for the disclosed meant to cover an embodiment of software alone.

While claim 21 recites a "device" which is an element of computer hardware, the claim recites adapting web page content "for display" on the device, therefore the claim does not necessarily require the use of computer hardware and as such is directed to non-statutory subject matter, although an intended use with computer hardware is recited.

**Regarding dependent claim 25**, which depends from independent claim 11, claim 25 recites; *a computer program or suite of programs so arranged such that when executed by a computer system it/they cause/s the system to perform the method of claim 11.* Claim 25 is directed to non-statutory subject matter because the claimed computer program may be given a broadest reasonable interpretation as being directed to software *per se*. Claim 25 does not require that the claimed program be executed by a computer system, but states that *when executed by a computer system it/they cause/s the system to perform the method of claim 11.* Therefore, claim 25 does not necessarily require the use of a statutory category of invention, such as a computer.

**Regarding dependent claim 26**, claim 26 recites: *A modulated carrier signal incorporating data corresponding to the computer program or at least one of the suite of programs of claim 25.* Carrier waves and signals do not fall under one of the enumerated statutory categories of invention under 35 USC 101.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanevsky, U.S. Patent No. 6,300,947 B1, issued October 2001, in view of Huttunen, U.S. Pub. No. 2003/0069881 A1, published April 2003.**

**Regarding independent claim 1**, Kanevsky teaches *an apparatus for adapting web page content for display on an intended display device, comprising adaptation means for splitting the content into a plurality of smaller web pages for display on said device, the adaptation means being arranged in use to: (i) split the content into a plurality of content portions, and to iteratively repeat steps (ii) to (vi) for at least one of the content portions; because Kanevsky discloses folding the content of web pages depending on the size of a screen or window of an intended display device (col. 1, l. 57-col. 3, l. 52; col. 4, l. 55-col. 5, l. 19). Kanevsky discloses repeating iteratively a set of steps for the content portions, because Kanevsky teaches a method of adapting web pages for categories of screens with sizes different from the original design of the data (col. 8, l. 2-15; col. 8, l. 35-col. 9, l. 45).*

Kanevsky discloses the step of *(ii) analyse the content to determine whether the size of the content portion is suitable for display on said device; because Kanevsky discloses a semantic interpreter module to analyze and split the web page into a size suitable for the display device (col. 3, l. 1-67). Kanevsky teaches searching for an optimal match (compare to step ii), and if a match is not found, using a web page adaptation module to fold web pages into several pages, and strip objects from the pages (col. 9, l. 6-45; col. 15, l. 62-col. 16, l. 36).*

Kanevsky discloses the step of *(iii) if the size of the content portion is not suitable for display on said device, then apply at least one content transformation to the content portion; because Kanevsky teaches searching for an optimal match, and if a match is not found, using a web page adaptation module to fold web pages into several pages,*

dividing the pages into nodes, and if required, to strip objects from the pages (compare to step iii) (col. 9, l. 6-45; col. 15, l. 62-col. 16, l. 36).

Kanevsky suggests but does not explicitly disclose the iterative steps (iv) and (vi): *(iv) analyse the transformed content to determine whether the size of the transformed content portion is suitable for display on said device;*

*(vi) if the size of the transformed content portion is not suitable for display on said device then split the content portion into a plurality of further content portions,* however, Huttunen teaches dynamic partitioning of web document content, based on partitioning rules such as the requirements of the user device (p. 4, par. 0038-0042). Huttunen teaches dynamic, i.e., iterative, partitioning of the nodes of the document based on a threshold, incorporating the steps (iv) and (vi) (p. 4, par. 0038-0042; par. 0080-0088).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the dynamic partitioning method disclosed by Huttunen to the web page adaptation module disclosed by Kanevsky, because Huttunen disclosed that substitutions in the methods of partitioning could be made to perform substantially the same function in substantially the same way, to achieve the same results (Huttunen, par. 0122), and since Kanevsky disclosed modules which were implemented as Finite State Automata, one of the simplest computing machines, disclosed by Kanevsky as well known in the art, which were adaptable to different methods (Kanevsky, col. 2, l. 49-19), therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the disclosed modules and methods to achieve predictable results.

**Regarding dependent claim 2**, Kanevsky teaches *wherein analysis steps (ii) and (iv) to determine whether the size is suitable comprise determining whether the content is small enough for display on said device*, because Kanevsky discloses a semantic interpreter module to analyze and split the web page into a size suitable for the display device smaller than the content (col. 3, l. 1-67).

**Regarding dependent claim 3**, Kanevsky teaches *in the event that step (iv) determines that the transformed content portion is small enough for display on said display device, then combine the transformed content portion with a further content portion to form a combined content portion*, because Kanevsky teaches searching for an optimal match, and if a match is not found, using a web page adaptation module to fold web pages into several pages, dividing the pages into nodes, and if required, to strip objects from the pages (col. 9, l. 6-45; col. 15, l. 62-col. 16, l. 36).

**Regarding dependent claim 4**, Kanevsky teaches *wherein the adaptation means is further arranged in use to: analyse the content to determine whether the size of the combined content portion is suitable for display on said device, and if the size of the combined content portion is too large for said device then apply at least one content transformation to the combined content portion*; because Kanevsky teaches searching for an optimal match, and if a match is not found, using a web page adaptation module to fold web pages into several pages, dividing the pages into nodes, and if required, to strip objects from the pages (col. 9, l. 6-45; col. 15, l. 62-col. 16, l. 36).

**Regarding dependent claim 5**, Kanevsky teaches *wherein said step of combining two content portions comprises selecting the further content portion from the*

*store, the adaptation means being further arranged to: analyse the content to determine whether the size of the transformed combined content portion is suitable for display on said device, and if the size of the transformed combined content portion is too large for said device then break up said combined content portion so as to return the further content portion back into said store; because Kanevsky teaches searching for an optimal match, and if a match is not found, using a web page adaptation module to fold web pages into several pages, dividing the pages into nodes, and if required, to strip objects from the pages (col. 9, l. 6-45; col. 15, l. 62-col. 16, l. 36).*

**Regarding dependent claim 6**, Kanevsky teaches *if the size of the transformed combined content portion is small enough for display on said device then combine it with a second content portion*, because Kanevsky discloses folding the content of web pages depending on the size of a screen or window of an intended display device (col. 1, l. 57-col. 3, l. 52; col. 4, l. 55-col. 5, l. 19).

Kanevsky discloses repeating iteratively a set of steps for the content portions, because Kanevsky teaches a method of adapting web pages for categories of screens with sizes different from the original design of the data (col. 8, l. 2-15; col. 8, l. 35-col. 9, l. 45), based on the size of the display device.

**Regarding dependent claim 7**, Kanevsky teaches *analysis means arranged in use to translate the web page content into a hierarchical tree format comprising a plurality of nodes labelled so as to represent suitable locations for splitting the content into smaller web pages*. Kanevsky discloses translating the web page into a

hierarchical decision tree format to represent suitable locations for splitting the content into smaller web pages (col. 3, l. 20-52).

**Regarding dependent claim 8**, Kanevsky teaches *wherein the adaptation means further comprises a store for content portions, and wherein said steps of splitting content to form smaller content portions comprises adding a plurality of content portions into the store*. Kanevsky discloses, for example, storing adapted web page data associated with user defined shell sizes (col. 17, l. 22-col. 18, l. 19).

**Regarding dependent claim 9**, Kanevsky teaches *wherein the adaptation means comprises: a transformations store for storing a record of transformations which have been applied to content together with an indication of the type of content those transformations have been applied to*, because Kanevsky teaches constructing a new URL for a new smaller window or display size (col. 9, l. 46-col. 10, l. 35). Kanevsky also inherently discloses a transformations store for storing a record of transformations, because Kanevsky teaches storing transformations in modules (col. 10, l. 52-col. 11, l. 14).

**Regarding dependent claim 10**, Kanevsky teaches *applying content transformations according to the record of transformations to the further content portion so as to consistently apply transformations to the same type of content as indicated in the record of transformations*. Kanevsky teaches constructing a new URL for a new smaller window or display size (col. 9, l. 46-col. 10, l. 35). Kanevsky also inherently discloses a transformations store for storing a record of transformations, because Kanevsky teaches storing transformations in modules (col. 10, l. 52-col. 11, l. 14).

**Regarding independent claim 11 and dependent claims 12-20,** claims 11-20 are directed to the methods which are implemented by the apparatus as claimed in claims 1-10, above, and are rejected along the same rationale.

**Regarding independent claim 21,** Kanevsky discloses *an apparatus for adapting web page content for display on a device whose display is sufficiently smaller than the originally intended display size of the web page for the content of the web page to require splitting over a plurality of pages on the display of the device*, because Kanevsky discloses folding the content of web pages depending on the size of a screen or window of an intended display device (col. 1, l. 57-col. 3, l. 52; col. 4, l. 55-col. 5, l. 19). Kanevsky discloses repeating iteratively a set of steps for the content portions, because Kanevsky teaches a method of adapting web pages for categories of screens with sizes different from the original design of the data (col. 8, l. 2-15; col. 8, l. 35-col. 9, l. 45).

Kanevsky discloses *the apparatus comprising: means arranged to integrate the process of splitting the content with applying transformations by recursively splitting the content into smaller and smaller portions whilst simultaneously applying various transformations so as to minimise the amount of white space visible on the smaller pages*; because Kanevsky discloses a semantic interpreter module to analyze and split the web page into a size suitable for the display device (col. 3, l. 1-67). Kanevsky teaches searching for an optimal match, and if a match is not found, using a web page adaptation module to fold web pages into several pages, and strip objects from the pages (col. 9, l. 6-45; col. 15, l. 62-col. 16, l. 36). Kanevsky teaches applying

transformations to minimize the amount of white space on the smaller pages (col. 15, l. 12-col. 16, l. 10).

While Kanevsky discloses splitting content, Kanevsky does not explicitly teach recursion. However, Huttunen teaches dynamic partitioning of web document content, based on partitioning rules such as the requirements of the user device (p. 4, par. 0038-0042). Huttunen teaches dynamic, i.e., recursive, partitioning of the nodes of the document based on a threshold, incorporating the steps (iv) and (vi) (p. 4, par. 0038-0042; par. 0080-0088).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the dynamic partitioning method disclosed by Huttunen to the web page adaptation module disclosed by Kanevsky, because Huttunen disclosed that substitutions in the methods of partitioning could be made to perform substantially the same function in substantially the same way, to achieve the same results (Huttunen, par. 0122), and since Kanevsky disclosed modules which were implemented as Finite State Automata, one of the simplest computing machines, disclosed by Kanevsky as well known in the art, which were adaptable to different methods (Kanevsky, col. 2, l. 49-19), therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the disclosed modules and methods to achieve predictable

**Regarding dependent claim 22**, while Kanevsky does not explicitly teach the limitations of claim 22, Huttunen teaches *means arranged to track the transformations which have been applied to each smaller portion, wherein the apparatus further comprises means arranged to ensure consistency by applying the same transformations*

*to any similar portions of the web-page content.* Huttunen teaches tracking user preferences for transformations of document fragments, for example, to ensure consistency in applying the same transformations (par. 0118).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the dynamic partitioning method disclosed by Huttunen to the web page adaptation module disclosed by Kanevsky, because Huttunen disclosed that substitutions in the methods of partitioning could be made to perform substantially the same function in substantially the same way, to achieve the same results (Huttunen, par. 0122), and since Kanevsky disclosed modules which were implemented as Finite State Automata, one of the simplest computing machines, disclosed by Kanevsky as well known in the art, which were adaptable to different methods (Kanevsky, col. 2, l. 49-19), therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the disclosed modules and methods to achieve predictable

**Regarding independent claim 23 and dependent claim 24**, claims 23 and 24 are directed to the methods which are implemented by the apparatus as claimed in claims 21 and 22, above, and are rejected along the same rationale.

**Regarding dependent claim 25**, Kanevsky teaches a computer program or suite of programs so arranged such that when executed by a computer system it/they cause/s the system to perform the method of claim 11 (col. 7, l. 10-56).

**Regarding dependent claim 26**, Kanevsky teaches a modulated carrier signal incorporating data corresponding to the computer program or at least one of the suite of programs of claim 25 (col. 7, l. 10-56).

**Regarding dependent claim 27**, Kanevsky teaches a computer readable storage medium storing a computer program or at least one of suite of computer programs according to claim 25 (col. 7, l. 10-56).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMELIA RUTLEDGE whose telephone number is (571)272-7508. The examiner can normally be reached on Monday - Friday 9:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on 571-272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Amelia Rutledge/  
Examiner, Art Unit 2176